

1           1.    A socket comprising:  
2                    an upper surface with a plurality of solder ball  
3   receiving apertures formed therein; and  
4                    a plurality of S-shaped spring contacts aligned  
5   with said apertures to electrically engage a solder ball  
6   inserted into an aperture.

1           2.    The socket of claim 1 wherein said spring  
2   contacts to make wiping electrical contact with solder  
3   balls.

1           3.    The socket of claim 1 wherein said spring  
2   contacts to make wiping electrical contact with lands.

1           4.    The socket of claim 1 wherein said S-shaped  
2   spring contacts include opposed contact arms, one of which  
3   extends upwardly and the other which extends downwardly.

1           5.    The socket of claim 1 wherein socket includes a  
2   body, said body having said apertures formed therein.

1           6.    The socket of claim 5 including an alignment  
2   feature extending upwardly from said body to align a land  
3   grid array package with said socket.

1           7.    The socket of claim 1 wherein said spring  
2   contacts include an upwardly extending arm to make contact  
3   with an integrated circuit package and a downwardly  
4   extending arm to make contact with an underlying circuit  
5   board.

1           8.    The socket of claim 1 wherein said socket  
2   includes a body including an upwardly extending protrusion,  
3   said protrusion having a height less than the height of a  
4   solder ball for a ball grid array package.

1           9.    The socket of claim 8 wherein said alignment  
2   feature is L-shaped.

1           10.   The socket of claim 9 including two L-shaped  
2   alignment features opposed diagonally from one another on  
3   said socket.

1           11.   An electronic device comprising:  
2                   a printed circuit board;  
3                   a socket coupled to said printed circuit board,  
4   said socket including a housing having an upper surface  
5   with a plurality of solder ball receiving apertures formed  
6   therein and a plurality of spring contacts aligned with  
7   said apertures to electrically engage a solder ball  
8   inserted into an aperture.

1           12. The device of claim 11 wherein said contacts are  
2 S-shaped spring contacts.

1           13. The device of claim 12 wherein said spring  
2 contacts include opposed contact arms, one of which extends  
3 upwardly and the other which extends downwardly to contact  
4 said printed circuit board.

1           14. The device of claim 13 wherein said printed  
2 circuit board has lands engaged by said spring contacts.

1           15. The device of claim 11 wherein said housing  
2 includes a protrusion on its upper surface to align a land  
3 grid array package with said housing.

1           16. The device of claim 15 wherein said alignment  
2 feature is L-shaped.

1           17. The device of claim 16 including two L-shaped  
2 alignment features opposed diagonally from one another on  
3 said housing.

1           18. The device of claim 11 including a ball grid  
2 array package engaged on said socket housing.

1           19. The device of claim 11 including a land grid  
2 array package engaged on said socket housing.